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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/531,247	03/21/2000	Jian Qin	11710-0160	7378

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JOHN S. PRATT  
KILPATRICK STOCKTON LLP  
1100 PEACHTREE  
SUITE 2800  
ATLANTA, GA 30309

EXAMINER
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WILSON, DONALD R

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 10/07/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/531,247

Applicant(s)

QIN ET AL.

Examiner

D. R. Wilson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 7-9, 13-16 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-12, 17-19 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other:  |

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**DETAILED ACTION*****Response to Amendment***

1. Applicant's amendment filed 9/3/02, has been fully considered with the following results.
2. The amendment is not deemed to be persuasive in overcoming the rejections under 35 U.S.C. § 112, first paragraph and the rejections are maintained as is discussed below.
3. The amendment overcomes some of the bases of the rejection under 35 U.S.C. § 112, second paragraph, and the rejection is withdrawn except in regards to the definition of surfactants, the amount of water sufficient to solvate the surface, "floating time" and "reduction in surface tension of saline less than about 30%", and in this regard the rejection is maintained for reasons discussed below.
4. The amendment is not deemed to be persuasive in overcoming the prior art rejections which are maintained for the reasons discussed below.

***Previously Cited Statutes***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

***Claim Rejections - 35 USC § 112, First Paragraph***

6. ***Claims 1-6, 10-12, 17-19 and 21 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.*** The basis of this objection was stated in Detailed Action § 6 of the previous Office Action. Applicant has traversed this rejection alleging that "--- the Examiner's statement that lauryldimethyl amine oxide only has one functional group is incorrect." Applicant goes on to assert that the structure is  $[\text{CH}_3(\text{CH}_2)_{11}\text{N}(\text{CH}_3)_2]_2\text{O}$ , and that the compound has two amine groups and one ether linkage. This is not deemed to be persuasive because it is clearly erroneous. It is contrary to known structures for amine oxides, the formula is inconsistent with bonding requirements (where is the oxygen bonded to form ether groups), and is not supported by any evidence. Applicant is referred to the American Chemical Society Registry file for lauryldimethylamine oxide RN #

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1643-20-5, previously made of record. As can be seen, amine oxides do not contain two amine groups and an ether group as is alleged.

7. *Claim 21 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for processes wherein the surfactant is applied to an insoluble material, does not reasonably provide enablement for processes wherein the superabsorbent material is in a solvated state, i.e., is dissolved.* The basis of this objection was stated in Detailed Action § 7 of the previous Office Action. Applicant traverses the rejection, but the traversal is not deemed to be persuasive because applicant has apparently misread the rejection. The Examiner has not said the process is not enabled wherein the surfactant is applied to an insoluble material. Contrary to this assertion the Examiner state this is enabled, but that application to a solvated material (i.e., dissolved) is not enabled, i.e.,

"The specification only teaches how to make permanently wettable super absorbent materials by treating the surfaces of solid materials."

***Claim Rejections - 35 USC § 112, Second Paragraph***

8. *Claims 1-6, 10-12, 17-19 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.*

9. The language of Claim 1 is indefinite because the only specifically identified suitable surfactant in the specification does not meet the limitations of what is described as the surfactant in Claim 1. Thus, it becomes unclear as to what the surfactants are. The basis of this rejection was stated in Detailed Action § 10(b) of the previous Office Action. Applicant traverses this rejection which is not deemed to be persuasive because it is based upon an erroneous structure for lauryldimethylamine oxide as has been discussed above.

10. Claim 2 is indefinite because it is unclear as to how much water is an amount sufficient to solvate the surface. The basis of this rejection was stated in Detailed Action § 11 of the previous Office Action. Applicant traverses the rejection and rejects a suggestion by the Examiner that an amendment of "an amount sufficient to promote reaction between said first and second functional groups" would overcome

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the rejection (basis on page 5). The argument that the amount corresponds to at least a 10% increase in volume (swelling) is not deemed to be persuasive as applicant has provide not basis in the specification from which this would be understood. While the discourse on why an increase in volume rather than amount of water is interesting, how this negates what was suggested is unclear, and the language of the claim remains unclear.

11. Claims 10-12 are indefinite because "floating time" and "a reduction in surface tension of saline less than about 30%" are indefinite unless saline is defined and the conditions of the test are specified. The basis of this rejection was stated in Detailed Action § 12 of the previous Office Action. Applicant traverses the rejection stating that the conditions of the test are defined page 10 line 30 to page 11, line 8 of the specification. This is not deemed to be persuasive because the test defined at the referenced place is for a fiber, wherein the claims in question are generically to a material. It is also noted that whereas the saline is defined in this test, the dimensions of the fiber are not defined. Applicant has even acknowledged the dependency of material dimension, i.e. "[a]pplicants understand that the dimension of a superabsorbent material affects total surface area and further its floating time an reduction in surface tension." This clear admission appears to buttress the Examiner's finding of indefiniteness.

***Claim Rejections - 35 USC § 102(b)/§ 103(a)***

12. ***Claims 1, 4, 6, 10-12, 19 and 21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bashaw.*** The basis of this rejection was stated in Detailed Action § 16-17 of the previous Office Action.

13. ***Claims 2-3, 5 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bashaw as applied to Claims 1, 4, 6, 10-12, 19 and 21 above, and further in view of Schwarz, Jr., as evidenced by the ACS Registry file.*** The basis of this rejection was stated in Detailed Action § 18-19 of the previous Office Action.

14. As applicant's traversal of both rejection are based upon alleged deficiencies of Bashaw, traversal of the above rejections will be treated collectively.

15. Applicant argues that "[a]ctivation in the present invention means to activate functional groups on the surface of a superabsorbent material so that they can form bonds with the reactive functional group of

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the surfactant". This is not deemed to be persuasive because there is no evidence to show that the surfaces as described by Bashaw are not reactive with the surfactant. The specification doesn't teach how the fibers were formed. The availability of functional groups with high surface energy contribution at the surface of the material to be treated, would be expected to be a function of how the material is prepared. For example, in a thermal forming process, or on thermal annealing, the high surface energy functional groups would want to be oriented into the material in order to minimize surface free energy. However, surfaces created by fracture would be expected to have a ratio of functional groups exposed in proportion to their ratio in the bulk. Coalescence in water or a methanol solution would also be expected to leave hydrophilic groups at the surface. The allegation that Sample 8 of the instant specification is analogous to Bashaw's composition is not deemed to be persuasive because there is no evidence that the surfaces are the same, i.e., made in the same manner, as the surfaces which are treated as taught and/or obvious over Bashaw, i.e., pulverization of the copolymer in an attrition mill to produce a powder, as in Example 1, coagulation in a solvent, such as methanol, or the use of chopped fibers. Applicant has also argued that "pulverization may produce new surface area, but doesn't modify the old/previous surface." This is not deemed to be persuasive because all that is required by the claims is that the surfactant is applied to the superabsorbent material when the second groups are activated. If they are available for reaction, then by applicant's definition of activated they are activated. The argument that activation means activation with water is not deemed to be persuasive because the claims are not so limited.

It is the claims that define the claimed invention, and it is claims, not specifications that are anticipated or unpatentable. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ2d 1064. Claims may be interpreted in the light of the specification for the purpose of defining a given term under 35 USC 112 but it must be remembered that during patent examination the pending claims must be interpreted as broadly as their terms reasonably allow. *In re Zletz*, 13 USPQ 1320. Generally, one does not read into claims in pending applications limitations from the specification. *In re Winkhaus*, 188 USPQ 129; *In re Prater*, 162 USPQ 541.

#### ***Art of Interest/Technological Background***

16. As previously stated MacLeay, Gross and Eckert disclose processes of treating superabsorbent particles and may be used in future rejections to non-elected species of the invention.

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***Action Is Final***

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

18. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

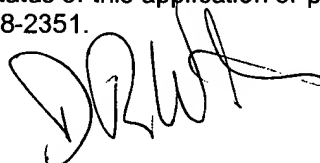
19. This application contains Claims 7-9, 13-16 and 20 drawn to an invention nonelected with traverse in Paper No. 5 and 7. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

***Future Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. R. Wilson whose telephone number is 703-308-2398.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 703-308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-5408 for regular communications and 703-305-3599 for After Final communications. The unofficial direct fax phone number to the Examiner's desk is 703-872-9029.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-2351.



D. R. Wilson  
Primary Examiner  
Art Unit 1713